

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (currently amended) A method of subjecting a material in a liquid to explosive forces, comprising:

containing the material and the liquid in a vessel having a length in a first direction and a width in a second direction perpendicular to the first direction, the length being greater than the width, the vessel having a lower portion having an interior cross sectional shape perpendicular to the first direction;

subjecting the material and the liquid to the explosive forces in the vessel, the explosive forces being caused by introducing energy to the liquid by discharging a capacitor through a capacitor discharge electrode located within the liquid; and

removing the material from the vessel after being subjected to the explosive forces,

wherein the vessel is a pipe.

Claim 2. (original) The method of claim 1, wherein the vessel has a vessel-bottom and a vessel-top, the vessel-top being removeably positionable above the vessel-bottom.

Claim 3. (original) The method of claim 2, wherein an interior surface of the vessel-bottom

has at least one substantially planar surface extending substantially parallel to the first direction.

Claim 4. (original) The method of claim 3, wherein the interior surface of the vessel-bottom has a substantially planar bottom surface extending substantially parallel to the first and second directions.

Claim 5. (original) The method of claim 4, wherein the interior surface of the vessel-bottom has a substantially planar side surface extending parallel to the first direction and sloped at an angle of between 0° and 90° relative to the second direction.

Claim 6. (original) The method of claim 2, wherein the interior surface of the vessel-bottom is semi-cylindrical.

Claim 7. (original) The method of claim 2, further comprising
connecting the vessel-bottom to a foundation;
fixing at least one connector to the foundation; and
reversibly locking the vessel-top to the connector and the foundation with a locking mechanism.

Claim 8. (original) The method of claim 7, wherein the locking mechanism comprises a locking plate slidably attached to the vessel-top and an actuator that slides the locking plate

Appl. No. 09/664,533
Amtd. Dated September 23, 2003
Reply to Office Action of June 23, 2003

relative to the vessel-top, the locking plate having a hole with two portions, one portion sized larger than the connector so that the connector passes through it and the other portion sized smaller than the connector so that when the locking plate is slid to a locking position, the connector prevents the locking plate from moving away from the foundation.

Claim 9. (original) The method of claim 2, further comprising connecting the vessel-bottom to a foundation and a lower mounting spring such that the vessel-bottom is resiliently connected to the foundation.

Claim 10. (original) The method of claim 9, wherein the vessel-bottom has a flange extending outwardly from the vessel-bottom parallel to the first and second directions, the flange being located vertically between an upper mounting spring and the lower mounting spring.

Claim 11. (original) The method of claim 2, wherein the vessel-bottom is rigidly fixed to a foundation.

Claim 12. (original) The method of claim 2, further comprising venting the vessel-top through a hole through the vessel-top, a deflector being located inside the vessel-top and adjacent the hole so as to allow gas to pass through the hole and substantially prevent the material or liquid from passing through the hole.

Appl. No. 09/664,533
Amdt. Dated September 23, 2003
Reply to Office Action of June 23, 2003

Claim 13. (original) The method of claim 2, further comprising removing the material and liquid from the vessel through an opening in the vessel created by moving a movable end, the movable end being movable relative to a main portion of the vessel.

Claim 14. (original) The method of claim 13, wherein the main portion has a groove in an interior surface and the movable end is a sliding member mounted in the groove such that when the movable end is in a closed position the vessel-bottom contains the material and liquid, and when the movable end is in an open position the material and liquid can be removed from the vessel-bottom through the opening created by sliding the movable end.

Claims 15-16 (cancelled)

Claim 17. (previously presented) The method of claim 1, wherein the energy is supplied to the capacitor discharge electrode by a capacitor discharge machine attached to the capacitor discharge electrode.

Claims 18-24. (cancelled)

Claim 25. (previously presented) A method of subjecting a fibrous material in a liquid to explosive forces, comprising:

containing the material and the liquid in a vessel having a length in a first

direction and a width in a second direction perpendicular to the first direction, the length being greater than the width, the vessel having a lower portion having an interior cross sectional shape perpendicular to the first direction;

subjecting the material and the liquid to the explosive forces in the vessel; and removing the material from the vessel after being subjected to the explosive forces, wherein the interior cross sectional shape is such that the material is subjected to a portion of the explosive forces reflecting off of an interior surface of the lower portion of the vessel.

Claim 26. (previously presented) The method of claim 25, wherein the material is a wood product.

Claim 27. (original) The method of claim 1, wherein the liquid is water.

Claim 28. (previously presented) A method of subjecting a material in water to explosive forces, comprising:

containing the material and the water in a vessel having a length in a first direction and a width in a second direction perpendicular to the first direction, the length being greater than the width, the vessel having a lower portion having an interior cross sectional shape perpendicular to the first direction;

subjecting the material and the water to the explosive forces in the vessel; and removing the material from the vessel after being subjected to the explosive

forces,

wherein the interior cross sectional shape is such that the material is subjected to a portion of the explosive forces reflecting off of an interior surface of the lower portion of the vessel, and

the water contains Na_2S .

Claim 29. (original) The method of claim 2, wherein the material is metal.

Claim 30. (previously presented) The method of claim 27, wherein the material is an impurity in the water.

Claim 31. (previously presented) The method of claim 30, wherein the material is one of bacteria and a pathogen.

Claim 32. (previously presented) The method of claim 1, wherein the material is fibrous.

Claim 33. (previously presented) The method of claim 1, wherein the material is a wood product.

Claim 34. (previously presented) The method of claim 27, wherein the liquid contains Na_2S .

Appl. No. 09/664,533
Amtd. Dated September 23, 2003
Reply to Office Action of June 23, 2003

Claim 35. (previously presented) The method of claim 1, wherein the interior cross sectional shape is such that the material is subjected to a portion of the explosive forces reflecting off of an interior surface of the lower portion of the vessel.